WHAT IS CLAIMED IS:

1. A scanning microscope that defines a beam path, comprising an optical component, arranged in the beam path, that comprises a plane entrance surface through which a light beam bundle can be incoupled at an entrance angle, and a plane exit surface through which the light beam bundle can be outcoupled at an exit angle, whereby the optical component contains at least two elements that exhibit at least two different refractive indices; and the entrance angle and exit angle are different.

2. The scanning microscope as defined in Claim 1, wherein the light beam bundle is not deflected by the optical component.

3. The scanning microscope as defined in Claim 1, wherein the light beam bundle is deflected no more than 5 degrees by the optical component.

4. The scanning microscope as defined in Claim 1, wherein the light beam bundle contains light of at least two wavelengths and wherein the exit angle is identical for the light of at least two wavelengths.

5. The scanning microscope as defined in Claim 1, wherein the optical component is a beam splitter.

6. The scanning microscope as defined in Claim 1, wherein the optical component is a beam deflection device.

7. The scanning microscope as defined in Claim 1, wherein the optical component contains an acoustooptical component.

8. The scanning microscope as defined in Claim 1, wherein the optical component is achromatically corrected.

9. The scanning microscope as defined in Claim 1, wherein in the optical component contains a double wedge.

10. The scanning microscope as defined in Claim 1, wherein the light beam bundle comprises at least two portions of differing wavelength; and the portions of differing wavelength extend collinearly after exiting from the optical component.

11. The scanning microscope as defined in Claim 1, wherein the scanning microscope is a confocal scanning microscope.

12. An optical component comprising at least two elements that exhibit at least two different refractive indices and that define a plane entrance surface through which a light beam bundle can be incoupled at an entrance angle and a plane exit surface through which the light beam bundle can be outcoupled at an exit angle, whereby the entrance angle is different from the entrance angle and whereby partial beam bundles divided from the light beam bundle by the optical element are sufficiently spatially separated from the light beam bundle that they do not interfere with the light beam bundle.

13. The optical component as defined in Claim 12, wherein the light beam bundle contains light of at least two wavelengths and wherein the exit angle is identical for the light of at least two wavelengths.

14. The optical component as defined in Claim 12, wherein the optical component is a beam splitter.

15. The optical component as defined in Claim 12, wherein the optical component is a beam deflection device.

16. The optical component as defined in Claim 12, wherein the optical component contains an acoustooptical component.

17. The optical component as defined in Claim 12, wherein the optical component is achromatically corrected.

18. The optical component as defined in Claim 12, wherein the optical component contains a double wedge.

19. The optical component as defined in Claim 12, wherein the light beam bundle comprises at least two portions of differing wavelength; and the portions of differing wavelength extend collinearly after exiting from the optical component.

20. The optical component as defined in Claim 12, wherein the optical component is positionable in a scanning microscope.